

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO	
10/077,593	02/14/2002	Yinan Wu	10559-684001 / P13288	1555	
20985	7590 05/19/2005		EXAMINER		
FISH & RICHARDSON, PC			VIGUSHIN, JOHN B		
	MINO REAL , CA 92130-2081		ART UNIT	PAPER NUMBER	
,			2841	2841	
			DATE MAILED, 05/10/200	•	

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)	874			
Office Action Summary		10/077,593	WU ET AL.				
		Examiner	Art Unit				
		John B. Vigushin	2841				
Period fo	The MAILING DATE of this communication app or Reply	ears on the cover sheet with the c	orrespondence ad	dress			
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).							
Status							
1)🛛	Responsive to communication(s) filed on 22 Fe	ebruary 2005.					
2a)⊠	This action is <b>FINAL</b> . 2b) ☐ This	action is non-final:					
3)	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
	closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 45	3 O.G. 213.				
Disposit	ion of Claims						
4)⊠	Claim(s) 1-7 and 9-31 is/are pending in the app	olication.					
,	4a) Of the above claim(s) is/are withdrawn from consideration.						
5)⊠ Claim(s) <u>1-7,9-24 and 27-31</u> is/are allowed.							
6)⊠	6)⊠ Claim(s) <u>25 and 26</u> is/are rejected.						
7) 🗌	Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.							
Applicati	ion Papers						
9)⊠	The specification is objected to by the Examine	r.					
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
Priority (	under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:							
1. Certified copies of the priority documents have been received.							
2. Certified copies of the priority documents have been received in Application No							
3. Copies of the certified copies of the priority documents have been received in this National Stage							
application from the International Bureau (PCT Rule 17.2(a)).							
* See the attached detailed Office action for a list of the certified copies not received.							
Attachmen		4)	(DTO 442)				
	e of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PTO-948)	4)  Interview Summary ( Paper No(s)/Mail Da	te				
3) 🔲 Infor	mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	- ·	atent Application (PTO	-152)			
	er No(s)/Mail Date	6)					

#### **DETAILED ACTION**

1. The present Office Action is responsive to Applicant's Response filed February 22, 2005 (Certificate of Mailing date: February 17, 2005). Claims 1-7 and 9-31 remain pending in the instant amended Application.

### Specification

2. The disclosure is objected to because of the following informalities:

On p.2 of the Applicant's above-cited instant Response, the Applicant's attempt to correct the errors noted by the Examiner in paragraphs [0022] and [0027] is unsuccessful because the Applicant has failed to line through the errors and underline the corrective replacements. The Applicant should further amend the paragraphs indicated as [0022] and [0027] to make clear the corrective amendments.

Furthermore, the Applicant must use page and line numbers, and NOT the paragraph numbers [0022], [0027] and [0033] indicated in the above-mentioned amendment to the Specification because the paragraphs of the Specification, as filed on February 14, 2002, are NOT so enumerated; only lines and pages are indicated.

Appropriate correction is required.

## Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- 4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 5. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being obvious over Marketkar et al. (US 2001/0024888 A1) in view of Ishibashi et al. (US 6,163,464).

  [Examiner's Note: the above-cited references have been previously made of record in the instant Application].

The applied reference (Marketkar et al.) has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130

stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

- A) As to Claim 25:
- I. Marketkar et al. (US 2001/0024888 A1) discloses mounting sockets 700 on a circuit board at locations of electromagnetic bus couplers (Figs. 1, 2, 13 and 14) using a force (lines 1-9 or paragraph [0102]) that *inherently* causes the viscous material--placed in the gap between surface 355 of the electromagnetic bus coupler 354 and surface 301 of the backplane (i.e., motherboard) circuit board 300 (Figs. 4 and Figs. 13-16; paragraph [0064])—to be squeezed and to flow to fill air gaps between sockets 700 and backplane circuit board 300. *Examiner's remarks on the inherency*. The force from the sockets 700 comprises the force exerted on flexible electromagnetic coupler 354 against circuit board 300 by latches 734 and 744 (Figs. 13-16 and lines 5-6 of paragraph [0102]), and with the viscous material placed in the gap between surface 355 of coupler 354 and surface 301 of backplane circuit board 300 (paragraph [0064]), that force *inherently* causes the viscous material to be squeezed and to flow to fill air gaps between the sockets 700 and backplane circuit board 300. Marketkar et al. further discloses populating circuit board 300 with a memory controller—for electronically

managing circuit boards 352 when circuit boards 352 are memory modules--coupled to a bus served by the electromagnetic bus couplers (Figs. 1, 2 and 13; paragraphs [0035] and [0046]).

- II. Marketkar et al. does not teach that any of devices 120, 130 and 140 of Figs. 1 and 2 (manifested in the memory module boards 352 of Figs. 13 and 14) mounted on backplane circuit board 300, or any other circuit components that may also be mounted to backplane circuit board 300, may be a processor coupled to the bus served by the electromagnetic bus couplers 354.
- III. Ishibashi et al. (US 6,163,464) discloses circuit boards 5a-f mounted to backplane board 1 through connectors 6a-f, wherein circuit boards 5a-f not only may include a memory board but also include a processor board (col.3: 29-31) for performing the data processing functions.
- IV. Since both Marketkar et al. and Ishibashi et al. disclose an electronic system wherein circuit boards that perform electronic functions are mounted to a backplane through connectors, then including a processor board among the functional boards for performing the data processing functions, as taught by Ishibashi et al., would have been readily recognized in the pertinent art of Marketkar et al.
- V. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to mount various types of functional boards to the bus on the backplane board in the electronic system of Marketkar et al., including a processor board, as taught by Ishibashi et al., coupled to the bus served by the electronic bus

couplers in order to perform the data processing in the electronic system of Marketkar et al.

B) As to Claim 26, modified Marketkar et al. further discloses that among the circuit boards 352 inserted into sockets 700 are memory modules (paragraphs [0035] and [0046]), which are art-recognized digital devices.

### Allowable Subject Matter

- 6. Claims 1-7, 9-24 and 27-31 have been allowed.
- 7. See reasons for allowance in the Examiner's previous Office Action of December 14, 2004.

#### Examiner's Remarks

8. The Examiner acknowledges Applicant's stated <u>intent</u> to file a terminal disclaimer (see p.8 of Applicant's instant Response), evidently as partial fulfillment of one of the available procedures for disqualifying the Marketkar et al. reference (US 2001/0024888 A1) relied upon by the Examiner for the rejections of Claims 25 and 26 set forth in the present Office Action, above. However, no such terminal disclaimer was ever filed and the Applicant has not <u>fully complied</u> with any of the available procedures for overcoming the above-cited rejections. A summary of the procedures for overcoming the rejections set forth above is repeated below:

The applied reference (Marketkar et al.) has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35

Application/Control Number: 10/077,593

Art Unit: 2841

U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Regarding section (3) in the paragraph reproduced above, the Examiner recommends the Applicant consult the MPEP § 718.

Since the Applicant's apparent intent to disqualify Marketkar et al. has been stated but without actual compliance with any of the requirements, the Examiner has repeated the rejection of Claims 25-26 under Marketkar et al. in view of Ishibashi et al., as set forth in the previous Office Action of December 14, 2004.

### Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Vigushin whose telephone number is 571-272-1936. The examiner can normally be reached on 8:30AM-5:00PM Mo-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Primary Examiner

Art Unit 2841

ibv May 13, 2005